

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **LISTING OF CLAIMS:**

Claims 1-15 (cancelled).

16. (New) A method for triggering solenoid valves assigned to gas-exchange valves in an electrohydraulic valve actuation of an internal combustion engine having a plurality of combustion chambers, each of the gas-exchange valves having at least one intake valve and at least one discharge valve, all solenoid valves of all gas exchange valves of a combustion chamber forming a solenoid valve set, the method comprising:

activating the solenoid valves assigned to the gas-exchange valves independently of each other;

ascertaining at least crankshaft-synchronous trigger signals for solenoid valves of the internal combustion engine in a control device and transmitting the ascertained trigger signals to an output stage;

triggering, by the output stage, the solenoid valves based on the transmitted trigger signals;

specifying an activation profile for all solenoid valves of each of the solenoid valve sets;

ascertaining, in a control device, a crankshaft-synchronous activation signal for each combustion chamber and supplying the ascertained activation signal to the output stage; and

activating, by the output stage, the solenoid valves based on the activation signal according to the activation profile specified for each of the solenoid valves.

17. (New) The method as recited in claim 16, wherein a specific activation profile is determined for each individual one of the solenoid valves of each of the solenoid valve sets.

18. (New) The method as recited in claim 16, wherein the activation signal for each individual cylinder is a binary signal.

19. (New) The method as recited in claim 18, wherein the activation signal for each individual cylinder is transmitted to the output stage on a cylinder-specific activation-signal line.

20. (New) The method as recited in claim 18, wherein the output stage activates solenoid valves of a cylinder based on a change in a value of the activation signal of the cylinder according to the activation profile, solenoid valves assigned to the intake valves being activated as a result of a first value change between two values of the activation signal, and solenoid valves assigned to the discharge valves being activated as a result of a second value change between two values of the activation signal, the second value change differing from the first value change.

21. (New) The method as recited in claim 17, wherein each specific activation profile is determined in the control device and transmitted to the output stage via a data line and stored in a memory of the output stage for use in a triggering of the solenoid valves.

22. (New) The method as recited in claim 21, wherein the specific activation profiles stored in the memory of the output stage is updateable during operation of the output stage by values newly ascertained in the control device.

23. (New) The method as recited in claim 21, wherein each activation profile is made up of an indication of a plurality of consecutive time durations.

24. (New) The method as recited in claim 23, wherein each activation profile consists of specifying four consecutive time durations, a first time duration representing a duration of a waiting time, a second time duration representing a duration of an application of a pull-up voltage at the solenoid valve, a third time duration representing a duration of a free-flight phase, and a fourth time duration representing a duration of an application of a holding voltage at the solenoid valve.

25. (New) The method as recited in claim 16, further comprising:

ascertaining an adaptation set in the control device for solenoid valves, which includes an adaptation of values of the activation profile, the values of the adaptation set being transmitted by the control device to the output stage.

26. (New) The method as recited in claim 16, further comprising:  
ascertaining one adaptation group of adaptation sets for each of the solenoid valve set.
27. (New) The method as recited in claim 25, wherein the values of the adaptation sets are transmitted by the control device to the output stage via a second data line.
28. (New) A circuit system for the triggering of solenoid valves assigned to gas-exchange valves, comprising:  
a control unit configured to ascertain activation trigger signals for the activation of the solenoid valves;  
an output stage, activation trigger signals being transmitted by the control unit to the output stage via lines, a triggering of the solenoid valves being implemented in the output stage;  
a data line arranged between the control unit and the output stage for the transmission of activation profiles, the output stage of solenoid valves; and  
activation-signal lines arranged between the control unit and the output stage, crankshaft-synchronous activation of actuation of the solenoid valves of cylinders in response to activation signals.
29. (New) The circuit system as recited in claim 28, wherein an activation-signal line is provided between the control unit and the output stage for each cylinder.
30. (New) The circuit system as recited in claim 25, further comprising:  
a second data line for transmission of adaptation sets.
31. (New) The circuit system as recited in claim 28, wherein the output stage includes a memory for storing the activation profiles of the solenoid valve.
32. (New) The circuit system as recited in claim 28, wherein the output stage includes a computing unit to determine the trigger signals from the activation profiles and the activation signals.

33. (New) The circuit system as recited in claim 32, wherein the computing unit determines the trigger signals from adaptation sets.